PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

bstitute for form 1449B/PTO

JUL 2 3 2007

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of Sheet

	Complete if Known	
Application Number	10/564,707	
Filing Date	June 30, 2006	
First Named Inventor	Artemis G. Hatzigeorgiou	
Art Unit	1635	
Examiner Name	To Be Determined	
Attorney Docket Number	UPN0027-100	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
/JZ/	AA	Abrahante et al., "The Caenorhabditis elegans hunchback-like Gene lin-57/hbl-1 Controls Developmental Time and Is Regulated by MicroRNAs," <i>Dev Cell</i> 4:625-37, 2004.	
20000000	AB	Amarzguioui et al. "Tolerance for mutations and chemical modifications in a siRNA," <i>Nucleic Acids Res</i> 31: 589-95, 2003.	
000000000000000000000000000000000000000	AC	Ambros et al., "A uniform system for microRNA annotation," (2003) RNA 9:277-9.	
000000000000000000000000000000000000000	AD	Ambros et al., "MicroRNAs and Other Tiny Endogenous RNAs in C. elegans," (2003) Curr Biol 13:807-18	
000000000000000000000000000000000000000	AE	Aukerman et al., "Regulation of Flowering Time and Floral Organ Identity by a MicroRNA and Its APETALA2-Like Target Genes," (2003) Plant Cell 15:2730-41.	
000000000000000000000000000000000000000	AF	Bartel et al., "MicroRNAs: At the Root of Plant Development?" Plant Physiol (2003) 132:709-17.	
000000000000000000000000000000000000000	AG	Bartel et al., "MicroRNAs: genomics, biogenesis, mechanism, and function," (2004) Cell 116:281-97	
000000000000000000000000000000000000000	АН	Bernstein et al., "Role for a bidentate ribonuclease in the initiation step of RNA interference," (2001) Nature 409:363-6.	
000000000000000000000000000000000000000	AI	Bohnsack et al., "Exportin 5 is a RanGTP-dependent dsRNA-binding protein that mediates nuclear export of pre-miRNAs," (2004) RNA 10:185-91.	
X000000000000	AJ	Brennecke et al., "Bantam Encodes a Developmentally Regulated microRNA that Controls Cell Proliferation and Regulates the Proapoptotic Gene hid in Drosophila," (2003) <i>Cell</i> 113:25-36.	
V	AK	Calin et al., "Frequent deletions and down-regulation of micro- RNA genes miR15 and miR16 at 13q14 in chronic lymphocytic leukemia," (2002) <i>Proc Natl Acad Sci USA</i> 99:15524-9.	

Examiner Signature	/Jane Zara/	Date Considered	08/11/2009
-----------------------	-------------	--------------------	------------

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

ostitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

Complete if Known			
Application Number	10/564,707		
Filing Date	June 30, 2006		
First Named Inventor	Artemis G. Hatzigeorgiou		
Art Unit	1635		
Examiner Name	To Be Determined		
Attorney Docket Number	UPN0027-100	$\overline{\mathcal{J}}$	

	NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *			T²		
/JZ/	/JZ/ AL Chen, "A microRNA as a translational repressor of APETALA2 in Arabidopsis Flower Development," (2002) Science 303:2022-25.				
жасаа	AM	Doench et al., "siRNAs can function as miRNAs," (2003) Genes Dev 17:438-42.			
000000000000000000000000000000000000000	AN	Doench et al., "Specificity of microRNA target selection in translational repression," (2004.) Genes Dev 18: 504-11.			
300000000000000000000000000000000000000	AO	Dostie et al., "Numerous microRNPs in neuronal cells containing novel microRNAs," (2003) <i>RNA</i> 9:180-186.			
200000000000000000000000000000000000000	AP	Elbashir et al., "RNA interference is mediated by 21- and 22-nucleotide RNAs," (2001) <i>Genes Dev</i> 15:188-200			
жасасасасас	AQ	Enright et al., "MicroRNA targets in Drosophila," (2003) Genome Biology 5(1)R1.			
000000000000000000000000000000000000000	AR	Grishok et al., "Genes and mechanisms related to RNA interference regulate expression of the small temporal RNAs that control C. elegans developmental timing," (2001) <i>Cell</i> 106:23-34.			
000000000000000000000000000000000000000	AS	Ha et al., "A bulged lin-4/lin-14 RNA duplex is sufficient for Caenorhabditis elegans lin-14 temporal gradient formation," (1996) <i>Genes Dev</i> 10:3041-50.			
***************************************	AT	Hamilton et al., "A species of small antisense RNA in posttranscriptional gene silencing in plants," <i>Science</i> (1999.) 286:950-2.			
000000000000000000000000000000000000000	AU	Hammond et al., "Argonaute2, a link between genetic and biochemical analyses of RNAi," <i>Science</i> (2001) 293:1146-50.			
20000000000	AV	Hutvagner et al., "A cellular function for the RNA-interference enzyme Dicer in the maturation of the let-7 small temporal RNA," (2001) <i>Science</i> 293:834-8.			
V	AW	Hutvagner et al., "A microRNA in a multiple-turnover RNAi enzyme complex," (2002) Science 297:2056-60.			

Examiner	/Jane Zara/	Date	08/11/2009
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

titute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet of

Complete if Known		
Application Number	10/564,707	
Filing Date	June 30, 2006	
First Named Inventor	Artemis G. Hatzigeorgiou	
Art Unit	1635	
Examiner Name	To Be Determined	
Attomey Docket Number	UPN0027-100	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *			T²
AX Kasprzyk et al., "EnsMart: a generic system for fast and flexible access to biological data," (2004) Genome Res 14:160-9.			
900000	AY	Kasschau et al., "P1/HC-Pro, a viral suppressor of RNA silencing, interferes with Arabidopsis development and miRNA unction," (2003) <i>Dev Cell</i> 4: 205-17.	
***************************************	AZ	Ketting et al., "Dicer functions in RNA interference and in synthesis of small RNA involved in developmental timing in C. elegans," (2001) <i>Genes Dev</i> 15:2654-9.	
	ВА	Khvorova et al., "Functional siRNAs and miRNAs exhibit strand bias," (2003) Cell 115:209-16.	
	ВВ	Knight et al., "A role for the RNase III enzyme DCR-1 in RNA interference and germ line development in Caenorhabditis elegans," (2001) Science 293:2269-71.	
	ВС	Lagos-Quintana et al., "Identification of novel genes coding for small expressed RNAs," (2001) Science 294: 853-8.	
	BD	Lagos-Quintana et al., "Identification of tissue-specific microRNAs from mouse," (2002) Curr Biol 12: 735-9.	
	BE	Lai, "Micro RNAs are complementary to 3' UTR sequence motifs that mediate negative post-transcriptional regulation," (2002) Nat Genet 30: 363-4.	
	BF	Lai et al., "Computational identification of <i>Drosophila</i> microRNA genes," (2003) 4:R42.	
	BG	Lau et al., "An abundant class of tiny RNAs with probable regulatory roles in Caenorhabditis elegans," (2001) <i>Science</i> 294: 858-62.	
V	вн	Lee et al., "An extensive class of small RNAs in Caenorhabditis elegans," (2001), Science 294862-4, 294:882-864.	

Examiner	/Jane Zara/	Date	08/11/2009
Signature	/Jane Zara/	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet of

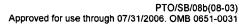
Complete if Known		
Application Number 10/564,707		
Filing Date	June 30, 2006	
First Named Inventor	Artemis G. Hatzigeorgiou	
Art Unit	1635	
Examiner Name	To Be Determined	
Attorney Docket Number	UPN0027-100	

		NON PATENT LITERAT	URE DOCUMENTS			
Examiner Initials *	Cite No.1	the item (book, magazine, journal, serial, sy	nclude name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of he item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
/JZ/	BI	Lee et al., "The C. elegans heterochronic gene complementarity to lin-14," (1993) <i>Cell</i> 75:843-	et al., "The C. elegans heterochronic gene lin-4 encodes small RNAs with antisense plementarity to lin-14," (1993) <i>Cell</i> 75:843-54.			
300000	ВЈ	Lee et al., "The nuclear RNase III Drosha initia	ates microRNA pr	ocessing," (2003) Nature 425:415-9		
Kaaaaaaaaaa	BK	Lewis et al., "Prediction of mammalian microl	RNA targets," (200	3) Cell 115:787-98.		
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	BL	Lim et al. "The microRNAs of Caenorhabditis	elegans," (2003) G	enes Dev 17:991-1008.		
***************************************	ВМ	Lin et al., "The C. elegans hunchback Homolo Probable MicroRNA Target," (2003) <i>Dev Cell</i> 4		Temporal Patterning and Is a		
300000000000	BN	Llave et al., "Cleavage of Scarecrow-like mRN (2002) Science 297:2053-6.	lave et al., "Cleavage of Scarecrow-like mRNA targets directed by a class of Arabidopsis miRNA," 2002) Science 297:2053-6.			
30000000000	во	Lund et al., "Nuclear export of microRNA pre	ecursors," (2004) Sa	cience 303:95-8.		
000000000000000000000000000000000000000	BP	Martinez et al., "Single-stranded antisense siR 110:563-74.	Martinez et al., "Single-stranded antisense siRNAs guide target RNA cleavage in RNAi," <i>Cell</i> 10:563-74.			
300000000000	ВQ	Mazumder et al., "Translational control by the Biochem Sci 28:91-8.	3'-UTR: the ends	specify the means," (2003) Trends		
000000000000000000000000000000000000000	BR	Michael et al., "Reduced accumulation of spec Cancer Res 1:882-91.	Michael et al., "Reduced accumulation of specific microRNAs in colorectal neoplasia," (2003) Mol Cancer Res 1:882-91.			
300000000000000000000000000000000000000	BS		Moss et al., "The cold shock domain protein LIN-28 controls developmental timing in C. elegans and is regulated by the lin-4 RNA," (1997), Cell, 88:637-46.			
00000000000	ВТ	Moss et al., "Conservation of the heterochronic regulator Lin-28, its developmental expression and microRNA complementary sites," (2003) <i>Dev Biol</i> 258:432-42.				
V	BU	Mourelatos et al., "miRNPs: a novel class of ribonucleoproteins containing numerous microRNAs," (2002) Genes Dev 16: 720-8.				
Examiner Signature	/odito Lata					

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

ostitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 5 of

Complete if Known		
Application Number	10/564,707	
Filing Date	June 30, 2006	
First Named Inventor	Artemis G. Hatzigeorgiou	
Art Unit	1635	
Examiner Name	To Be Determined	
Attorney Docket Number	UPN0027-100	

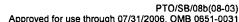
		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
/JZ/	BV	Nussinov "Nearest neighbor nucleotide patterns. Structural and biological implications," (1981) <i>J Biol Chem</i> 256:8458-62.	
000000	BW	Olsen et al., "The lin-4 regulatory RNA controls developmental timing in Caenorhabditis elegans by blocking LIN-14 protein synthesis after the initiation of translation," (1999) <i>Dev Biol</i> 216: 671-80.	
000000000000000000000000000000000000000	вх	Palatnik et al., "Control of leaf morphogenesis by microRNAs," (2003) Nature 425:257-63.	
X	BY	Pesole et al., "UTRdb and UTRsite: specialized databases of sequences and functional elements of 5' and 3' untranslated regions of eukaryotic mRNAs," (2002) <i>Nucleic Acids Res</i> 30: 335-40.	
000000000000000000000000000000000000000	BZ	Pruitt et al., "NCBI Reference Sequence project: update and current status," (2003) <i>Nucleic Acids Res</i> 31:34-7.	
000000000000000000000000000000000000000	CA	Reinhart et al., "The 21-nucleotide let-7 RNA regulates developmental timing in Caenorhabditis elegans," (.2000) <i>Nature</i> 403:901-6.	
000000000000000000000000000000000000000	СВ	Rhoades et al., "Prediction of plant microRNA targets," (2002) Cell 110:513-20.	
000000000000000000000000000000000000000	СС	Schwarz et al., "Asymmetry in the assembly of the RNAi enzyme complex," (2003) Cell 115:199-208.	
0,0000000000000000000000000000000000000	CD	Seggerson et al., "Two genetic circuits repress the Caenorhabditis elegans heterochronic gene lin-28 after translation initiation," (2002) <i>Dev Biol</i> 243:215-25.	
000000000000000000000000000000000000000	CE	Seitz et al., "Imprinted microRNA genes transcribed antisense to a reciprocally imprinted retrotransposon-like gene," (2003) Nat Genet 34: 261-2.	
000000000000000000000000000000000000000	CF	Stark et al., "Identification of Drosophila MicroRNA Targets," (2003) Plos Biology 1: 1-13.	
000000000	CG	Tang et al., "A biochemical framework for RNA silencing in plants," (2003) Genes Dev 17: 49-63.	
V	СН	Tinoco et al., "Improved estimation of secondary structure in ribonucleic acids," (1973) Nat New Biol 246(150):40-41.	

Signature /Jane Zara/ Date Considered 08/11/2009
--

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

ubstitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

6 Sheet of

		_				
Complete if Known						
Application Number	10/564,707					
Filing Date	June 30, 2006					
First Named Inventor	Artemis G. Hatzigeorgiou					
Art Unit	1635					
Examiner Name	To Be Determined					
Attorney Docket Number	UPN0027-100					

Exami Initials		Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	т,
/JZ/		CI	Vella et al., "The C. elegans microRNA let-7 binds to imperfect let-7 complementary sites from the lin-41 3'UTR," (2004) <i>Genes Dev</i> 18:132-7.	
		CJ	Wightman et al., "Posttranscriptional regulation of the heterochronic gene lin-14 by lin-4 mediates temporal pattern formation in C. elegans," (1993) <i>Cell</i> 75:855-62.	
		CK	Xie et al., "Negative Feedback Regulation of Dicer-Like1 in Arabidopsis by microRNA-Guided mRNA Degradation," (2003) <i>Curr Biol</i> 13:784-9.	
		CL	Xu et a;l., "The Drosophila MicroRNA Mir-14 Suppresses Cell Death and Is Required for Normal Fat Metabolism," (2003) Curr Biol 13:790-5.	
		СМ	Yiet al., "Exportin-5 mediates the nuclear export of pre-microRNAs and short hairpin RNAs," (2003) Genes Dev 17:3011-6.	
		CN	Zeng et al., "Both natural and designed micro RNAs can inhibit the expression of cognate mRNAs when expressed in human cells," (2002) Mol Cell 9:1327-33	
		со	Nelson et al., "The microRNA world: small is mighty," (2003) Trends Biochemical Science 28:534-540.	
1		СР	Nelson et al,. "miRNP:mRNA association in polyribosomes in a human neuronal cell line. (2004) RNA 10:387-394.	

		· · · · · · · · · · · · · · · · · · ·	
Examiner Signature	/Jane Zara/	Date Considered	08/11/2009

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.